Ministry of Forests

Information Management Group
Corporate IT Training Strategy

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Version 3.0

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Overview

Background

In the past year and a half more than fifty computer applications that support Ministry of Forest (MOF) operations have been replaced, or are in the process of being replaced, with a suite of applications that better support the new results-based business model.[1] These applications are more closely aligned with one another than they were in the past and it is increasingly important for users to understand the inter-relationships between the applications, the importance of data integrity, and the business processes supported by the applications.

As a result of these changes, there will be a requirement to train a large number of MOF staff and external stakeholders in the 2005/06 timeframe on the new or upgraded applications.

In addition, MOF is moving towards replacing cumbersome paper based business methods with more efficient electronic methods through the Electronic Forest Management initiative. Key components of the Electronic Forest Management Initiative are e-Submissions, e-Access, e-Records, and e-Learning.[2]

Since 2002, MOF has invested in an infrastructure to support e-Learning. Specifically, there is currently:

- a high saturation of PC desktops within MOF with web access;
- available bandwidth and voice network to support electronic delivery of training;
- promotion and support of e-Learning and e-Business within MOF and the completion of a number of successful e-learning initiatives within the Ministry (See IMG Training Tools Matrix);
- an online classroom tool (LearnLinc™) has been purchased and used successfully by MOF for delivery of classroom training;
- a training materials authoring tool (SABA), has been purchased and used by MOF to build assessments and web based training courses; and
- a Learning Management System (SABA) has been purchased and used by MOF to automate the administration of training events, manage registration of users, manage course catalogs, record data from learners, and provide reports to management. In addition, SABA can be used to launch e-learning courses and track assessment and evaluation scores.

Purpose

The purpose of this document is to provide recommendations for future application training and outline a training framework upon which future data, business and application training can be designed, developed, and delivered starting in January 2005.

[1] 2004/05- 2006/07 Service Plan – Ministry of Forests

[2] Information Management Group website – Electronic Forest Management (e-FM) Initiative

Training Strategy Objectives

The objectives of the Corporate IT Training Strategy are to:

- provide a uniform and consistent approach to all application training within MOF;
- ensure users understand the inter-connections between the applications and the importance of shared data and data integrity;
- ensure application training is developed from a business process perspective, so that users understand the business reason for the application;
- ensure business specialists champion the training and provide support to the districts and regions;
- improve accessibility of learning by providing a ministry-wide infrastructure that will enable learners (of any number) to take training at any time, from any location;
- build a base of business skills and knowledge within the districts and regions so individuals can champion and support training in their areas;
- ensure training and support materials maintain their currency and evolve as the applications change; and
- minimize volume of post implementation help requests.

Assumptions

Underlying assumptions of the Corporate IT training strategy are:

- IT Training is a shared responsibility between the Business Area Branch, Information Management Group, and the Operations Division and BCTS.
- There will be neither the time, resources or the budget to deliver all the ministry's anticipated IT training requirements solely using traditional classroom methods.
- The training technologies that MOF has already invested in, namely, the Learning Management System (SABA) and the Online Classroom (LearnLinc™) should be used for IT training.
- The audience for training on MOF systems includes MOF and MSRM employees as well as licensees and other external users. Training needs to be available and accessible for these external users.

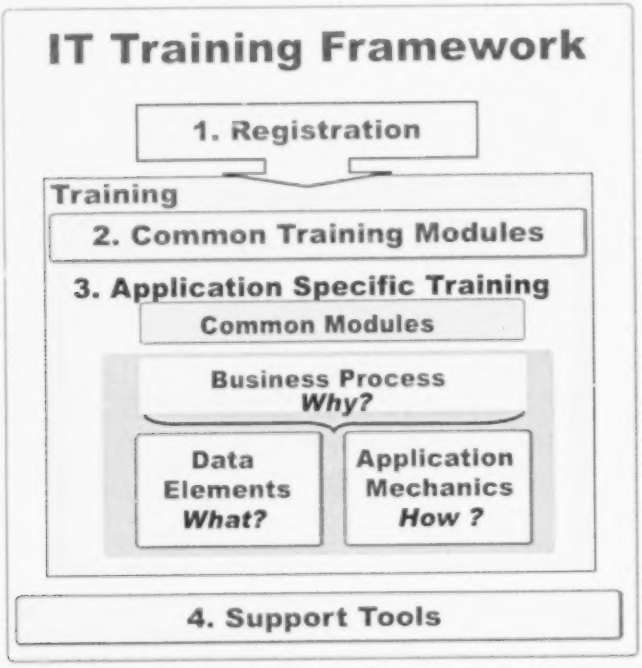
Key Elements of the Training Strategy

The key elements of the training strategy are:

- Ensure all application training has a "business process" focus (i.e. start with the business reason for the application and then teach users how to use the application to complete the business process). In addition to supporting MOF's business model, this training approach will reinforce the importance of the training.
- Ensure all training (web and classroom) is tracked using the Ministry Learning Management System (LMS).
- Develop common web-based training modules which can be used across multiple application training programs.
- Identify and support Operations Division and BCTS "champions" (in the regions and districts) who will help to ensure that training is rolled out successfully and supported in the field.

- Use a "blended" training approach for the majority of applications training that includes:
  - a web-based component;
  - an online or classroom-based training component (or both); and
  - a support tool component.

Recommended IT Training Framework



The diagram above illustrates the key components of a recommended IT Training Framework. This framework would apply to the content of all application training developed across MOF.

1. Registration:

Any training taken by MOF employees should be tracked through the MOF Learning Management System —SABA. SABA is particularly useful for online classroom and WBT training, as users can register and then access the training through SABA. However, SABA should also be used for the registering and tracking of classroom training. Having a standardized registration process will:

- simplify the current registration process for employees and managers;
- streamline and reduce time-consuming training administration;
- create a permanent record of training attendance;
- automate pre-requisite training; where a module must be completed prior to a user being able to sign up for another module; and
- provide valuable reporting information on training, allowing MOF to track training and report accurately on the reach and success of training initiatives.[3]

[3] 2004/05 – 2006/07 Service Plan for MOF

2. Common Training Modules:

Currently there are some application training concepts that can be modularized and used across numerous applications. In most cases these common training modules should be web-based. Developing common training modules would help consistency in training and reduce training development time. Recommendations for "common" modules include:

- **Overview course on Application Interdependencies** i.e. "The Big Picture"—A PowerPoint presentation is currently being developed to capture this content. The longer term objective is to convert the PowerPoint content into a Web Based Training Tutorial (WBT) or online classroom sessions that could be easily accessed by all users.
- **Using Web Applications**—a short tutorial introducing users to the key features of web applications.
- **Understanding Access to Ministry Spatial Data**--a short tutorial introducing non-technical users to the basics of accessing spatial data using tools such as Mapview and SeedMap.
- **Electronic Submission Framework (ESF) Module**—as the ESF is introduced in a number of application training modules, a common module could be developed covering the basics of the framework and how it interacts with other applications.
- **Training Adult Users on Systems—**this would be a common course for all trainers who are conducting in-person or online classroom sessions. It would include tips and techniques for training adult users, key approaches for training on systems and how to manage an online classroom.

3. Application Specific Training

Application specific training should be broken into modules focusing on business functions; this will mean that not all users have to attend all modules. However, as with the common training modules across all applications, there will also likely be some common modules across all user groups. These common modules should be developed as part of the overview training for all users.

Any IT Training on new applications should have the following three components:

- **Business Process**—all application training should start from a business process perspective. (i.e. focusing on **why** the application was built and how it addresses the business need). By building application training from a business perspective, users are better able to understand the MOF business model and why the application is an important tool to the success of the business process.
- **Data Elements**—Given the inter-dependencies between applications, it is important that all users understand the importance of data integrity within their application and the sharing of data between applications. A business process perspective is also important in this component of the training so that users understand how the data is used to address the business process. This training would focus on **what** data is used within the application and between applications.
- **Application Mechanics**—Traditionally, this is where application training has focused and this is still an important component of the training, however the focus of this component of the application training must be on **how** the application addresses the business process. "Functions & features" training is not helpful in providing learners with the skills and knowledge they need to support the new results-based business model.

4. Support Tools

All application training should include one or more support tools. In some cases (i.e. for small, non-complex applications), good performance support tools, such as a comprehensive online help/user guide may be all the training that is required. However, for most applications, support tools should augment the training and are an essential component to successful implementation. Appendix A provides an analysis of when support tools can be used exclusively for application training.

We recommend that all applications have a comprehensive online help/user guide, which becomes the primary user support tool once the application is implemented.

We also recommend a common "IMG Training Centre Website" which will provide employees with one location to access learning resources. This site should also be accessible from the "Business Information Center". The central training website could contain the following sections:

- What's new?
- The application training course catalogue with direct links to WBT's;
- Trainer Support Tools – such as Facilitator Guides with Speaker Notes, Overheads etc.
- a schedule of online and classroom training events with a link to the SABA registration site so learners can easily register; and
- links to the specific application training websites (i.e. CIMS/ FRA training website; SPAR/ Seed map training website; Results site; MAX site etc.).

In addition to comprehensive online help and an overall "IMG Training Center Website" most applications should also have the following support tools:

- Help Desk; and
- Quick Reference Materials.

Training Recommendations

Introduction - Training Development Lifecycle

When planning and implementing application systems training, a standard development process should be followed to ensure a quality training program with a consistent look and feel. To reinforce this standard development approach the following training recommendations have been organized according to the four main phases of the MOF's Systems Development Lifecycle.[4]

Phase 1—Plan & Design

This first phase of the training development lifecycle is critical for establishing a "blueprint" for the training. Time and resources spent at this phase offer the greatest return in terms of training success. The recommendations for this phase of the project include:

Recommendation #1—Establish an Application Training Team

This team will be responsible for the overseeing the training design, development and roll-out. It is essential that the team has representatives from the business area, IMG and the district or regions. Representatives from the districts and regions will become the "Business Champions", who will be critical to the long-term success of the implementation. It is vital that business experts are represented on the team to ensure that training materials are designed from a business focus. A significant time commitment is required by all training team members and this must be understood and agreed to right from the start.

[4] Systems Training Guide – Ministry of Forests System Development Life Cycle – note the 7 standard system phases have be consolidated into 4 by combining the first 4 phases (planning, initiation, analysis and design) into 1 (Plan & Design).

Recommendation #2—Conduct an audience analysis and determine learning requirements

Early in the planning and design phase, the training team must identify the target audience (number, turnover, composition, and location) and the learning requirements based on the business process. It is important at this point to include an analysis of the training requirements and ability to access training for any of the external users, such as licensees. The training team must clearly articulate the business function(s) the training must enable learners to perform. These business functions will drive the entire design of the training.

Recommendation #3—Select the appropriate training delivery method(s) for the application based on an analysis of factors

The choice of the appropriate training delivery vehicle should be based on an analysis of a range of factors including:

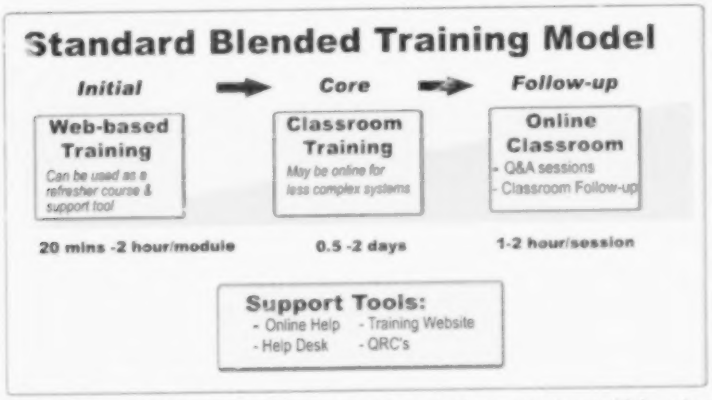
- the audience composition and the training intent i.e. a refresher course vs. in-depth training;
- budget, time and resource constraints; and
- the type and complexity of application being implemented.

The primary training delivery methods that have been considered for this training strategy include:

- **Traditional Classroom training** using either contracted resources, MOF central resource, or district/ regional trainers who have completed a train-the-trainer session. Traditional systems classroom training involves hands-on training to groups of 10-15 in a classroom setting. This is the most expensive option due to the time and travel costs, but this is a format that most trainers and learners are comfortable with.
- **Online classroom** using MOF specialists, contracted resources or district/ regional trainers. This training is similar to traditional classroom training in that there is one or more instructors delivering live training to learners, however, this training is delivered over the internet so learners, and instructors are not required to be in the same location.
- **Web-based training**, self-paced online modules – this is the least expensive option due to the fact that no travel or instructor delivery time is required.

Please refer to Appendix A for a more detailed analysis of the pro's and con's of each training method and the when it is best to use one delivery method over the other.

For the majority of training application programs in the MOF we would recommend a "blend" of the three training methods as illustrated in the diagram below:



- **Initial Training**—Web-based training consisting of short (20 mins-2 hours) online modules should be used for the initial training, to present overview and business process concepts prior to learners attending hands-on classroom training. Self-directed overview training will help to ensure all learners have a consistent level of knowledge prior to attending a classroom session and enable focused hands-on activities during the more expensive classroom training. WBT's are also good support tools after the training and can be used as the primary training tool for refresher training.
- **Core Training**—Hands-on Instructor-led training is still the most effective method for teaching complex application training and we recommend that this approach be used for the "Core" data and application mechanics training. Online classroom training is also an option for less complex systems.
- **Follow-up Training** —Online classroom sessions should be used to clarify and deepen the understanding of the application in the weeks and months following the classroom sessions. Sessions should focus on specific topic(s) and can contain both interactive presentations and question and answer periods. Sessions should be delivered, live, by expert(s) to learners in distributed locations using the LearnLinc™ technology. Sessions should be no longer than 1-2 hours in length.

MOF also has a training approach analysis tool (currently in draft form) which provides a systematic method for determining the optimal training delivery method for application training. See Appendix B for a sample of this analysis tool.

Recommendation #4—Draft a Training Plan

A formal training plan should be reviewed and signed off by all members of the training team, prior to starting training development. The Training Plan should include learning objectives; target audience; pre-requisite knowledge; modules and topics; delivery method; evaluation framework and development timelines.

Phase 2—Development

This second phase of the training development lifecycle is where the bulk of the training team's time will be spent. Recommendations for this phase of the project include:

Recommendation #5—Use consistent tools for development and delivery

Use of consistent tools for the development and delivery of training and support helps to ensure a consistent look and feel to the training materials streamlines maintenance and helps users who are using multiple systems. The following table outlines the recommended tools for training and support development.

Training or Support Component	Mandatory** or preferred development tools	Training using mandatory or preferred tools
Online Help	Robohelp	FTA, ECAS, GENUS, ERA, CIMS, MAX
Web-based Tutorials	**Must be SCORM or AICC compliant • Dreamweaver • Saba Publisher	ECAS, RESULTS, SPAR, MAX, Records Management (TRIM)
Paper based Guides	**Word, PDF	All training materials.
Presentations	**PowerPoint	All training presentations.
LMS	**Saba	Records Management, FRMA
Online Assessments	**Must be able to run under SABA LMS • Saba	Records Management
Online Classrooms	**Learnlinc or Netmeeting	Results Training

Recommendation #6—Use templates for training materials development

Templates should be used for the majority of training materials. This will speed up development, establish a consistent look and feel across training programs, and familiarize users with a standard training methodology (i.e. online help always has a FAQ section at the end). The templates we recommend creating include:

- Facilitator Guide template;
- Participant Guide template (only if required. Wherever possible, the trainer and trainee should use the same materials as this simplifies maintenance.
- Online Help template;
- Training Icons (Compliance and Enforcement Branch in MOF already has a set of training icons that have been used successfully and could be adopted by IMG) – see Appendix D for a list of C&E icons;
- PowerPoint Slide template;
- WBT development standards and a WBT Template; and
- Assessment template.

Recommendation #7—Re-use & integrate existing materials

Existing materials such as the business design document, the technical specifications and test scripts should be re-used and integrated as much as possible into the training materials to ensure consistency of information. Test scripts were successfully converted into activities for the CIMS and ERA training and this same approach should be considered for other application training. In addition, online help should be closely integrated into the training materials to reinforce the online help primary source of user information and to minimize replication of information across training tools.

Recommendation #8—Use relevant data in training activities & create a training database

As much as possible use relevant data, scenarios, and examples in all training materials. An essential component of successful application training is the development of a training database that provides learners with a platform on which to practice using real-life data. The training database must be maintained (refreshed and updated) regularly so that it remains a helpful tool to learners.

Recommendation #9—Pilot the training when possible

In many cases an application will go into pilot implementation; this is a good time to have a concurrent pilot of the training program. The purpose of the training pilot is to conduct a dry run of the training and solicit feedback from users on the

success of the training—specifically, did participants meet the learning objectives, and are there any logistical or administrative issues. The training team can then review the feedback and agree on changes to be incorporated into the training prior to full implementation. The pilot is also a good time for the Help Desk staff to receive training.

Recommendation #10—Factor system development timelines into the training development time

As system development is often pushed past original deadlines, there is a continual problem developing and scheduling training which is dependant upon the production version of the application. This dependency can be mitigated somewhat by focusing on the business requirements in the application training and scheduling initial training on the business process and the core application features. However, this is an ongoing systems development issue which must be managed with good communication between the development and training teams.

Phase 3—Implementation

Successful implementation requires good communication and the ability to manage unexpected changes; this critically important phase of the training development lifecycle is often the most challenging phase. Recommendations for this phase include:

Recommendation #11—Select trainers based on trainer skills & provide incentives

Staff selected as trainers often do not have the skills to present well. Consistent, easy-to-use electronic tools will help – but selection, training, and support of trainers is critical. Staff should be selected as trainers based on their skill and experience with training. Trainers should be rewarded for taking on a training role through additional compensation and an expanded job description. Management support and recognition of this training role is essential for the success of training.

Recommendation #12—Provide regions/districts with an overview of scheduled training

Given the range of training demands, it is important for district and regions to have a good sense of training plans over a given period. IMG needs to provide regions and districts with a "Snap-shot" of all application training expected over the next fiscal so that training can be prioritized and realistic training schedules can be set.

Recommendation #13—Schedule training around business cycles

Ensure training delivery takes into account the business cycles in the regions and districts. Classroom training works best in the April to May and October to November timeframe. June to Sept is generally not a good time for training due to fire season and field work. December to March is also not a good time for classroom training due to travel restrictions; however this is a good time for web based training options.

Recommendation #14—Integrate assessments & evaluations into training and track outcomes

Online assessments, to measure the skills and knowledge acquired by participants, should be included in all application training.

Online evaluations (or "smile sheets"), to measure how well participants reacted to the training should also be included in all application training packages.

Completion of assessments and evaluations should be mandatory for all participants and outcomes should be tracked in SABA so that the results can be analyzed and training programs can be updated accordingly.

Recommendation #15—Track all training using SABA

As discussed in the Training Framework Section of this document, all training should be tracked using MOF's corporate Learning Management System, SABA. This means that participants should self-register for training and, wherever possible, assessments should be provided and the results tracked.

Phase 4—Post Implementation

The focus of training development is typically on the preparation and delivery of materials with less attention paid to following-up, assessing, and maintaining the training. It is important that more emphasis is placed on this phase of training development. Recommendations for this phase include:

Recommendation #16—Support district & region "champions"

The ultimate success of the implementation will depend on the district and region champions. It is important that head office support these champions by providing good training and support materials and regular updates on system upgrades and changes. Scheduled conference calls with champions in the weeks following the implementation would help to address training issues and provide common solutions to recurring training problems.

Recommendation #17—Conduct a Post-Implementation Review of training

A post training review (either paper-based or as an online survey) should be conducted several months after the training has been completed and the learners have had a chance to apply their learning on the job.

Recommendation #18—Maintain training & support materials

For training and support materials to truly be effective tools in the long run, they must be maintained and enhanced in tandem with application upgrades. Out-of-date support tools are frustrating to users and create additional work for the central help desk. A process should be established to require updates to all training & support materials (most importantly online help) prior to any new releases.

Recommendation #19—Institute a "help" hierarchy

As many users automatically call the help desk without first looking at the support tools, a "help hierarchy" procedure should be instituted. The help desk should always ask users if they have looked at the online help first, and if they haven't work with them to see if the answer is online. This will start to reinforce the use of alternative support tools.

Challenges & Next Steps

Challenges

- **Executive Support** – ensuring that executive recognizes and supports the required investment in training.
- **Clearly defined & documented business processes** – ensuring that business requirements have been defined and documented for each application and are available for training.
- **Clearly defined & documented business & data linkages** – ensuring that business & data linkages are defined and documented for each application and are available for training i.e. building from the "Big Picture" presentation.
- **Culture Shift** – ensuring that sufficient resources (time, money, and people) are allocated to training, both for the design, development, and initial delivery and for on-going maintenance and updating. In addition, acceptance of non-traditional training delivery methods such as Web-based Training and computer literacy are still a challenge for some employees.
- **Commitment from Business Specialists** - ensuring that business specialists are available and committed to the training effort and are able to champion and support the training in the regions and districts.
- **Targeted content** – ensuring that the training content that is delivered is engaging and relevant to the users and has a business perspective.
- **Investing in good content development for web-based training courses** – recognizing the upfront cost and time required to develop good online content are much higher than the time required for the development of classroom training.
- **Infrastructure** – upgrading current technology infrastructure (soundcards, bandwidth, training workstations etc) to allow for "relatively" high-end (sound, limited video streaming)synchronous or asynchronous course delivery in an environment that is conducive to learning (i.e. minimizing distractions when taking online learning).

Next Steps

- Finalize and sign-off Corporate IT Training Strategy.
- Present Corporate IT Training Strategy to IMG Management Group.
- Establish training teams through the Corporate IT Training Group.
- Establish training performance metrics for the coming fiscal year i.e. number of applications to be trained on, number of online training hours, and number of users trained etc.
- Review application training requirements for the next fiscal and determine the appropriate training delivery models for each.
- Define and start to build common modules.
- Develop training templates.
- Link Corporate IT Training Strategy to the Business Information Center
- Select highest priority application training needs and start training development for that application based on IT Training Strategy.

ɔpendix A—Pro's and Con's of Alternate Training Delivery Methods

The following table highlights the different training delivery approaches that can be considered for IT Training within the Ministry of Forests, along with the key pro's and con's of each. The Delivery options are arranged from most expensive to least expensive.

Note: This document is based on the methodology in the white paper: "A Systematic Approach to Media Selection" by William W. Lee and Diana Owens"

Medium	Description	Pro's	Con's	When to use
• Traditional Classroom – General Factors	• Delivered by an instructor or facilitator in person. • Facilitator and Participant Guides provided. • Requires training facilities, scheduled training dates. • Travel is required by Instructor and possibility participants depending on the location.	• Consistent delivery to all participants. • Immediate question and answers. • Opportunity for face-to-face interaction and networking. • Learners are removed from the distraction of being at their worksite and can focus on learning. • Learners & Instructors are most comfortable and familiar with this model of training. • Materials can be tailored to the group or adjusted by the instructor while in progress.	• Time consuming and limits the number of participants that can participate at once. Volume of training low (e.g. to train 120 people a 3-4 day course would takes approximately 10 weeks, 1200 people would take 100 weeks) • Expensive – involves travel time and expenses by the instructor, the learners or both. • Scheduling may not meet the needs of everyone and some may miss the training event. Training is often too soon or too late. • Pace of leaning may not be suitable for all learners.	• For mission critical application. • For complex application where hands-on practice and human interactivity is important. • Where training numbers are lower (200 or less per year is ideal). • When turnover rate is not high in audience. • When tracking of course completion is necessary. • When training in a single location. • When training students of similar skill level.
• Traditional Classroom – Contracted Instructor		• Large savings in MOF trainer time. • Contractor can manage some of the logistics.	• Most expensive of all training options. • No in-house expertise is built. • MOF HQ training staff must still manage many of the logistics.	• When all the factors listed apply but availability of ministry personnel to deliver the training is limited.
• Traditional Classroom – Central MOF Instructor		• Little instructor learning time is required as some in-house expertise already exists. • Dollar savings through not	• Big time commitment for MoF instructor(s) • Expertise is invested in few people at HQ.	• When all the factors listed apply but availability of district or regional personnel to deliver the training is limited.

Medium	Description	Pro's	Con's	When to use
		contracting an instructor. • MoF business/process topics can be covered along with the application functions - lots of opportunity for in-depth question and answer.	• HQ training staff must manage all the logistics (e.g. registrations, equipment & facility set-up, scheduling) • District staff must travel to attend the training.	
• Traditional Classroom – Train-the-Trainer (District or Regional Trainers)		• Builds a large base of in-house instructors & experts. • Allows for widespread delivery in a short period of time. • Training can focus on regional needs & may meet needs more quickly than a central effort • Opportunity for face-to-face interaction and networking	• Inconsistent delivery possible due to varying levels of instructional expertise, content/business knowledge and a potential for heavy focus on • Depends heavily on regional commitment of staff time for training delivery, this function is often in addition to regular staff duties, making commitment difficult. • Each region is responsible for logistics. • Either trainers or district staff must travel to attend the training. • If/when a trainer changes jobs/locations, their region is without a training resource.	• For Instructor led training this is the preferred option as it builds skills in the districts and regions who can then provide on-going support. • Useful when a large number of employees must be trained quickly. • When it is important to build district and regional skills.
• Online Classroom	Interactive training delivered over the internet which provides opportunity for two-way communication between the instructor and the learner	• Consistent delivery message. • Reduced travel time for participants and instructors – reduced cost and greater convenience. • High levels of interaction and immediate feedback to questions in spite of distance. • One instructor for a large group of participants. Specialist can be	• Instructor requires special training to handle technology. • Some participant training is required to learn how to access the classroom and use the features. • More preparation is required by instructor to co-ordinate technology • Potential for instruction time to be	• When travel is a barrier due to budgets, distance or time of year. • When content has a short shelf life or changes rapidly. • Large audiences – 2000 or more per four year shelf life. • Must train large numbers of employees quickly. • When training must be

Medium	Description	Pro's	Con's	When to use
		available to a large number of audiences. • Can train large numbers in a short period of time.	derailed by technological issues. • Network connections required by users.	completed over a relatively short timeframe. • Students in multiple locations. • Students required to learn a hands-on application.
• Web-based Training	Provide training courses, tutorials and possibly materials over the internet, intranet or extranet. Courses may be accessed through the SABA LMS which enables tracking and reporting of student progress.	• Training is accessible when and where required • Time and Cost Reduction - While development costs for WBT's are typically higher, delivery costs are lower when compared to Instructor-led courses due to reduced reliance on travel to attend training and the ability to train more people more quickly. In addition, learner-training time is generally reduced due to the greater impact, flexibility and design of the solution. • Ease of Maintenance—Training can be maintained in one central location, simplifying the updating of materials and helping to ensure currency of training. • Training can be easily distributed ensuring that revisions are immediately available to all learners eliminating costly and time-consuming reliance on paper-based revisions and minimizing version control issues. • Consistency and Effectiveness, a consistent training message can be delivered, also training effectiveness is generally	• Specialized skills of course developers and programmers. • More preparation time in design and development. Initial higher costs. • Bandwidth issues can limit the extent to which audio and video can be used. • Increased demands on technology infrastructure. • Technical literacy and change management issues for some learners. • Reduced opportunity for interaction. • As this is self-directed training, motivation can be problematic. • May be viewed as having to be "done on your own time".	• When content has a short shelf life or changes rapidly. • Large audiences in multiple locations– 2000 or more per four year shelf life. • Must train large numbers of employees quickly. • Content requires computer interactivity. • Dispersed audience requiring decentralized training. • Training involves non-ministry personnel. • Limited expertise that needs to be leveraged across the entire organization. • Good for basic, refresher, or "quick start" training. • Good as part of an overall training package.

Medium	Description	Pro's	Con's	When to use
		considered higher with WBT's. • Remedial training at no cost.		
• Performance Support	No training required. Job-aids, on-line helps and user documentation are used to provide support where the training need is not significant.	• Provides information when and as it is required. • Does note require formalized training that removes people from their jobs.	• Not good for delivering concepts, principles or demonstrations.	• Non-mission critical application. • Application is intuitive and easy to learn by using. • Low number of application users. • When travel is a barrier due to budgets, distance or time of year • When implementation costs have to be kept low. • Training involves non-ministry personnel. • Employees needs to review information frequently • Best for providing information on procedures, processes or reference materials.

Appendix B–MOF Training Approach Analysis*

**** This is a draft tool and is still in development. Some modifications were made to the tool for the purposes of this analysis.***

Instructions

Complete the rating scale as follows:

1. Using the key provided, consider the importance of each factor on the rating scale to the situation that you are analyzing.
2. Use the summary sheet to tally the number of occurrences of each medium that you ranked as a 4 or 5.
3. Tally each medium that you ranked as a 1 or 2 (ignore those ranked as 3).
4. Subtract the number of Low Occurrences from the High Occurrences and record that number in the Difference column.
5. Determine the weight of the difference by dividing the Difference column with the All Occurrences column and record that percentage in the Weight column.
6. The media with the highest-weighted averages are probably the most appropriate media for your solution.

Rating Scale:

1= Not a consideration
2= Unimportant
3= Neutral consideration
4= Important
5= Very important

Factors	Rating	Considerations	Suggested Media	Notes
Cost Factors				
Keep Travel expenses low	1 2 3 4 5	Is travel a barrier due to budgets, distance, or business cycle considerations?	• Online classroom • Performance Support • Web-based	•
Content has a short shelf life or changes rapidly	1 2 3 4 5	Is content stable? Is it still under construction or development? How difficult is it to make revisions using this medium?	• Online classroom • Web-based	•
Audience Level – fewer than 200 per year need training	1 2 3 4 5	How many learners in the target audience? What is the expected size of the audience over the shelf life of training? What is the expected turn-over rate of learners?	• Instructor Led • Performance Support	•

Appendix B – Training Approach Analysis RESULTS

Factors	Rating	Considerations	Suggested Media	Notes
Must accommodate large numbers of participants (2000 or more per four years of shelf life)	1 2 3 4 5	Are there more than 2000 participants in the target audience?	• Online classroom • Web-based	•
Must train large numbers of employees quickly	1 2 3 4 5	How quickly must the training be developed? How much time is available to build or revise products?	• Instructor Led • Online classroom	•
Requires compression of training time	1 2 3 4 5	Is it important to reduce the training time that participants spend training?	• Performance Support • Web-based • Online classroom	•
Keep development costs per hour of instruction low	1 2 3 4 5	What is the budget per learner for this application training?	• Online classroom	•
Keep implementation, delivery and maintenance costs low	1 2 3 4 5	How will changes be accomplished? Will changes make previous distributions out-of-date?	• Performance Support	•
Testing, evaluating or tracking of student performance is necessary	1 2 3 4 5	Is course successful course completion necessary? Can the assessment be self-scored? Is certification necessary?	• Instructor Led • Web-based	•
Content requires computer interactivity	1 2 3 4 5	Does the content involve computer software, simulation, or practice?	• Web-based • Instructor Led with activities	•
Collaborative learning is desired	1 2 3 4 5	Do group learning experiences including opportunities to build relationships or share information need to occur?	• Instructor Led • Online Classroom	•
Content requires human interactivity	1 2 3 4 5	Will participants gain important knowledge & skills from immediate observer feedback about their performance? To what extent does the observer need to use or demonstrate skills?	• Instructor Led	•
Audience requires convenience – training at or near the work site	1 2 3 4 5	Is time away from work not possible because of work schedules etc.? Are participants widely dispersed?	• Web-based • Online Classroom	•

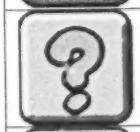
Appendix B – Training Approach Analysis RESULTS

Factors	Rating	Considerations	Suggested Media	Notes
Training involves non-ministry personnel	1 2 3 4 5	Do non-ministry personnel have access to computers and the internet?	• Web-based • Performance Support	•
Audience has limited access to required expertise	1 2 3 4 5	Is there limited expertise that must be leveraged across the organization?	• Web-based • Online Classroom • Performance Support	•
Learners are resistant to new media	1 2 3 4 5	How receptive is the audience to using a new medium? To what extent do attitudes towards traditional classroom training help or hinder learning?	• Instructor Led	•
Employees must review the information Frequently	1 2 3 4 5	Will on-going reference materials be required?	• Performance Support • Web-based	•

RESULTS Analysis Summary Sheet

Media Type	All Occurrences	High Occurrences	Low Occurrences	Difference	Weight
Instructor Led					
Online Classroom					
Web-based					
Performance Support					

Appendix C—Examples of Training Icons

C&E Icon	Used to denote
	Demonstration
	Exercise/ Activities
	Assessments/ Tests/
	Handouts
	Discussion
	Overhead
	Questions Information
	Readings, Reference Materials and Case Studies
	Warning
	Tip and Techniques
	Legislation
	Duration (available in 5 min time increment)

References

- Lee, William W. & Owens, Diane " A Systematic Approach to Media Selection"
- Draft Ministry of Forests – Training Approach Analysis
- Systems Training Guide – Ministry of Forests System Development Life Cycle
- Compliance & Enforcement – Systems Training & Implementation Strategy
- E-Learning in CCRA (January 31, 2001)